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# BLM3120 - Information Retrieval And Web Search Engines

## Project Proposal

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### Paper Title Recommendation System

#### Why?

We love reading papers, and we love arXiv. Paper titles are exciting section of papers, some of them relevant with paper content, some of them are not (e.g Attention Is All You Need). Titles motivate people to read the papers, have a big role on accepted submission to conferences. Maybe it can help people write more creative titles, even our project's.

#### What?

We propose a title recommendation system. After crawling e-print papers on arXiv, we want to build a recommendation system for titles using abstract sections and paper's subject (e.g Natural Language Processing, Statistics, Computer Vision). This project can be seen as "Opinion Mining and Sentiment Analysis".

#### How?

We use arXiv as a source for paper dataset. arXiv is a open pre-print and e-print website for papers and free. Using paper dataset, title recommendation needs a simple language model. Language models are a subfield of Natural Language Processing. We want to choose a baseline model (e.g N-Grams/Naive Bayes - RNNs), then use state-of-the-art models (e.g Transformers, BERT etc.).

#### When?

| Topic                       | Duration                              |
|-----------------------------|---------------------------------------|
| Literature & Dataset Review | $\frac{1}{2} \times$ Months           |
| Code Implementation         | $1 \times$ Months                     |
| Paper/Report                | $\frac{1}{2} \times$ Months           |
| Bonus:                      | Demo Website for Title Recommendation |